



IN THE UNITED STATES PATENT & TRADEMARK OFFICE

In re application of :
Cai, Yeping, et. al. :
Serial No.:10/669,977 :
Filing Date: September 24, 2003 :
Attorney Docket No. P-1111B :
For: PROCESS FOR PRODUCTION OF A
WATER GAS SHIFT CATALYST

Hon. Commissioner of Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

INFORMATION DISCLOSURE STATEMENT

While the information and references disclosed in this Information Disclosure Statement may be "material" pursuant to 37 CFR §1.56, it is not intended to constitute an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such. In accordance with 37 CFR §1.97(b), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR §1.56(a) exists. This information is submitted in compliance with 37 CFR §1.98.

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Respectfully submitted,

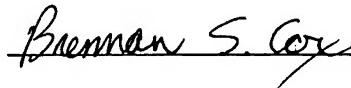


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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent application

of _____ Inventor(s)

for _____ Title of invention

OR

In re application of: **Cai, Yeping, et al.**

Application No.: **010 / 669,977** ✓ Group Art Unit:

Filed: **September 24, 2003** ✓ Examiner:

For: **Process for production of a water gas shift catalyst**

Commissioner for Patents

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NOTE: 37 C.F.R. 1.98(b):

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WARNING: No extension of time can be had under 37 C.F.R. § 1.136 (a) or (b) for filing an IDS. 37 C.F.R. § 1.97(f).

NOTE: The "filing date of a national application" under 37 C.F.R. § 1.97(b) has two possible meanings. Where the filing is a direct one to the United States Patent & Trademark Office, the filing is defined in 37 C.F.R. § 1.53(b) as "the date on which: (1) A specification containing a description pursuant to § 1.71 and at least one claim pursuant to § 1.75; and (2) any drawing required by § 1.81(a), are filed in the Patent and Trademark Office in the name of the actual inventor or inventors as required by § 1.41." 37 C.F.R. § 1.97(b)(1). On the other hand, an international application that enters the national stage occurs when the applicant has filed the documents and fees required by 35 U.S.C. § 371(c) within the periods set forth in § 1.494 or § 1.495. 35 U.S.C. § 371(c) requires the filing of the following: (1) the basic national fee; (2) a copy of the international application, unless already sent by the International Bureau, and optionally an English translation if filed in another language; and, also optionally (3) amendments under PCT Article 19, with a translation into English if made in another language; (4) an oath or declaration; and (5) a translation into English of any annexes to the international preliminary examination report, if such annexes were made in another language. The optional items must be submitted later, with surcharges. 37 C.F.R. § 1.97(b)(2).

IDENTIFICATION OF TIME OF FILING THE ACCOMPANYING INFORMATION DISCLOSURE STATEMENT

The information disclosure statement submitted herewith is being filed within three months of the filing date of the application or date of entry into the national stage of an international application or before the mailing date of a first Office action on the merits, whichever event occurs last. 37 C.F.R. § 1.97(b).

NOTE: "No certification or fee is due when the filing is made within the above time period. It is advisable to ensure that no Office action has been mailed if the disclosure statement is delayed until after three months from filing."

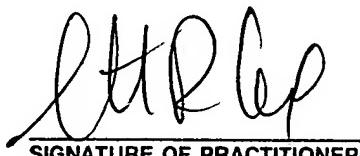
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NOTE: "An action on the merits means an action which treats the patentability of the claims in an application, as opposed to only formal or procedural requirements. An action on the merits would, for example, contain a rejection or indication of allowability of a claim or claims rather than just a restriction requirements (37 C.F.R. 1.142) or just a requirement for additional fees to have a claim considered (37 C.F.R. 1.16(d)). Thus, if an application was filed on Jan. 1 and the first Office action on the merits was not mailed until six months later on July 1, the examiner would be required to consider any proper information disclosure statement filed prior to July 1." Notice of April 20, 1992 (1138 O.G. 37-41, 39).

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SIGNATURE OF PRACTITIONER

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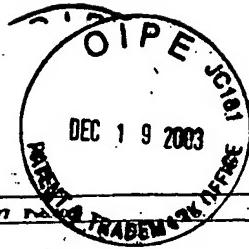
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Application Number	10/669,977
				Filing Date	SEPTEMBER 24, 2003
				First Named Inventor	Cai, et al.
				Group Art Unit	
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Sheet	1	of	1	Attorney Docket Number	P-1111B

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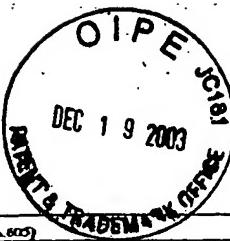
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		D.S. Newsome, Catal. Rev., 21, p. 275 (1980)	
		Ginés, M.J.L., et al. "Activity and structure-sensitivity of the water-gas shift reaction over Cu-Zn-Al mixed oxide catalysts," Applied Catalysts A: General 131, pages 283-296, 295 (1995)	
		M.J.L. Ginés and C.R. Pesteguia, "Thermal Decomposition of Cu-Based Hydroxycarbonate Catalytic Precursors for the Low-Temperature CO-Shift Reaction," Journal of Thermal Analysis 50, pages 745-756 (1997)	
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		Figueiredo, R. Tavares, et al. "Spectroscopic evidence of Cu-Al interactions in Cu-Zn-Al mixed oxide catalysts used in CO hydrogenation." Journal of Catalysts, 178, 146-152 (1998)	

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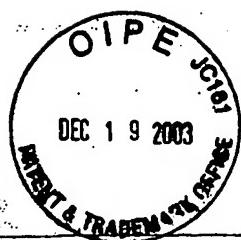
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		John G. Nunan, et al., "Methanol Synthesis Catalysts Based on Cs/Cu/ZnO/M ₂ O ₃ (M=Al, Cr, Ga): Genesis from Coprecipitated Hydrotalcite-like Precursors, Solid-state Chemistry, Morphology and Stability," <i>Inorg. Chemistry</i> , 28, 3868-3874 (1989)

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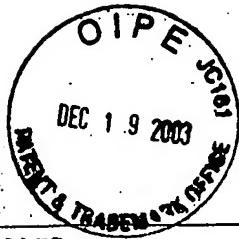
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		P. Gherardi, et al., "Preparation of Cu-Zn-Al Mixed Hydroxycarbonates Precursors of Catalysts for the Synthesis of ethanol at Low Pressure," <i>Preparation of Catalysis III</i> , 723-733 (1983)			
		C. Rhodes, et al. "Water-gas shift reaction: finding the mechanistic boundary," <i>Catalysis Today</i> , 43-58 (1995)			
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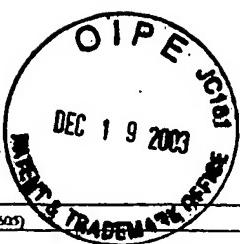
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS		
Examiner Initials*	CPO No.*	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
		J.-L. Li, et al., "Enhancement in methanol synthesis activity of a copper/zinc/aluminum oxide catalyst by ultrasonic treatment during the course of the preparation procedure," <i>Applied Catalysis A: General</i> , 139, 87-96 (1996)
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		S. Velu, et al., "Oxidative steam reforming of methanol over CuZnAl(Zr)-oxide catalysts; a new and efficient method for the production of CO-free hydrogen for fuel cells." <i>Chem. Commun.</i> , 2341-2342 (1999)
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		Gines, M.J.L., et al., "Activity and structure sensitivity of the water-gas shift reaction over Cu-Zn-Al mixed oxide catalysts." <i>Applied Catalysis A: General</i> 131, 283-296, (1995)
		Gines, M.J.L., et al., "Thermal Decomposition of Cu-Based Hydroxycarbonate Catalytic Precursors for the Low-temperature CO-Shift Reaction." <i>Journal of Thermal Analysis</i> , 50, 745-756 (1997)
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Examiner Signature	Date Considered
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with 37 CFR 1.52. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

*Unique citation designation number. *Applicant is to place a check mark here if English language Translation is attached.

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